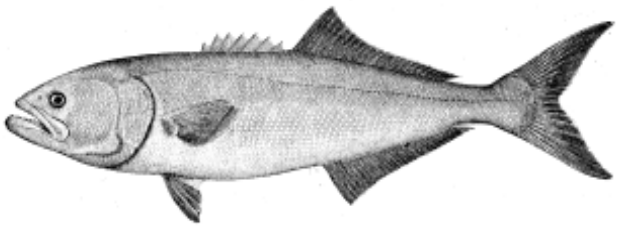

Last Revised: January 2000

Summary Status

Landings and Abundance Trends

Landings Data

Bluefish

by

Gary Shepherd

The bluefish, *Pomatomus saltatrix*, is a migratory, pelagic species found throughout the world in most temperate coastal regions, except the eastern Pacific. Along the U.S. Atlantic coast, bluefish are found from Maine to Florida, migrating northward in the spring and southward in the fall. Bluefish are voracious predators that feed on a wide variety of fish and invertebrates. They may reach ages of about 12 years and sizes in excess of 100 cm (39 in.) and 14 kg (31 lb).

Atlantic coast bluefish spawn mainly in the spring in the South Atlantic Bight and during summer in the Middle Atlantic Bight. Fish from the two spawning seasons mix extensively on the fishing grounds and probably comprise a single genetic stock. A unit stock of bluefish along the Atlantic coast is assumed for management purposes. Bluefish are managed under a fishery management plan developed by the Mid-Atlantic Fishery Management Council and the Atlantic States Marine Fisheries Commission. Management measures include bag limits in the recreational fishery and commercial quotas.

Total landings from Maine to Florida peaked in 1981 at an estimated 50,700 mt. Landings have since declined substantially; the 1996-1998 average (9,700 mt) was only 24% of the 1981-1988 average (41,000 mt). The recreational component of the fishery, which has historically constituted 80 to 90% of the total catch, peaked in 1981 at over 43,000 mt. Most of the recreational catch of bluefish is taken in the Middle Atlantic states (New York to Virginia). The 1998 recreational landings total of 5,600 mt accounted for 60% of the total catch.

The principal commercial fishing gears used to catch bluefish are otter trawls and gill nets. Commercial landings peaked in 1981 at 7,500 mt. Commercial landings averaged 6,200 mt annually from 1987-1991 and have since declined; the 1998 figure was 3,700 mt, 40% of the total.

In 1999, Atlantic coast bluefish were assessed using a surplus production model that provided estimates of maximum sustainable yield or MSY (= 37,800 mt), the fishing mortality rate and stock biomass level required to produce MSY (F_{MSY} = 0.38 and BMSY = 98,200 mt,

respectively), and estimates of stock biomass and fishing mortality through 1998. Bluefish stock biomass exceeded BMSY during the mid to late 70's, but has since declined. Stock biomass in 1998 was estimated at 23,000 mt, about 23% of BMSY, and fishing mortality for 1998 was estimated at 0.40, about 5% higher than FMSY. Bluefish have been overfished since 1980, and the stock is currently well below BMSY.

For further information

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Gibson, M. R., and N. Lazar. 1999. An update on status of bluefish stock: surplus production model. Update to Bluefish Monitoring Committee, 1999.

NEFSC [Northeast Fisheries Science Center]. 1997. [Report of the] 23rd Northeast Regional Stock Assessment Workshop (23rd SAW): Stock Assessment Review Committee (SARC) consensus summary of assessments. Northeast Fish. Sci. Cent. Ref. Doc. 97-05: 191p.

Summary Status

Long-term potential catch (MSY)	=	37,800 m
Biomass corresponding to MSY	=	B_{MSY} = 98,200 mt
Minimum biomass threshold	=	$^1/_2$ B_{MSY} = 49,100 mt
Stock biomass in 1998	=	23,000 mt (Implies an overfished condition)
F_{MSY}[1]	=	0.38
F_{TARGET}[1,2]	=	0.40
Overfishing definition	=	$F_{THRESHOLD}$[1] = >F_{MSY} and B<$^1/_2$ B_{MSY}
F_{1998}[1]	=	0.40 (Implies overfishing was occurring)
Age at 50% maturity	=	1 year
Size at 50% maturity	=	35 cm(13.8 in.)
Assessment level	=	Surplus Production
Management	=	Bluefish FMP

M = 0.25 **$F_{0.1}$ = 0.35** **F_{max}** = unknown

[1] Weighted by stock biomass at age.

[2]The long-term F_{TARGET} value (once the stock is rebuilt) is F=0.36; the current value of 0.40 is the interim target under the current rebuilding plan.

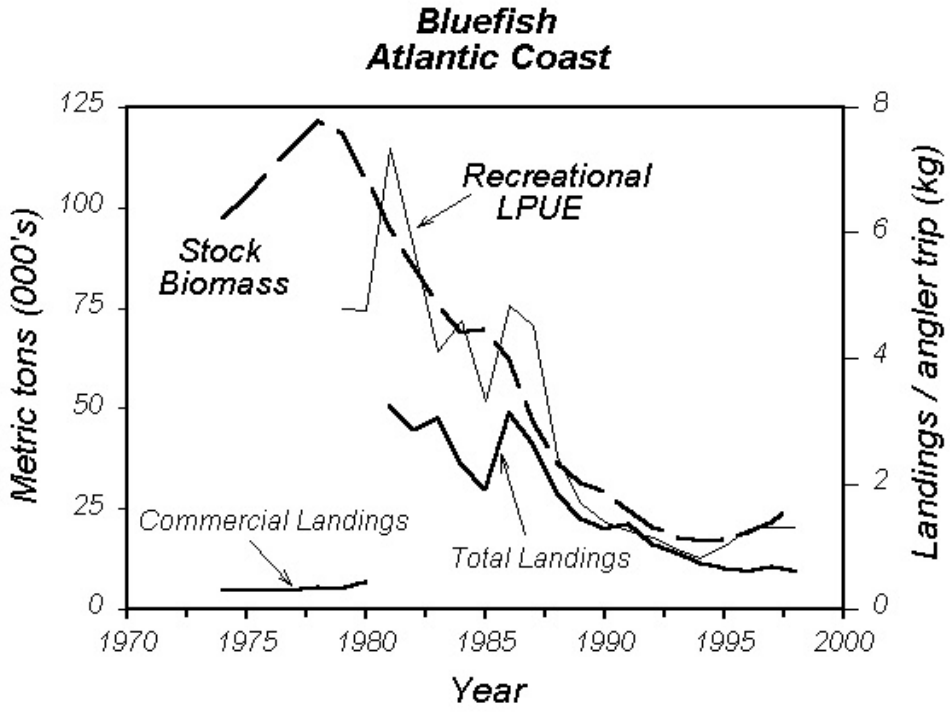

Table 24.1 Recreational catches and commercial landings (thousand metric tons)

		Year									
Category	**1981-88 Average**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**
U.S. recreational[1]	34.3	17.8	13.9	15.0	11.0	9.2	7.0	6.5	5.3	6.5	5.6
Commercial											
United States	6.7	4.7	6.2	6.2	5.2	4.7	4.3	3.6	3.9	4.1	3.7
Canada	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
Total nominal catch	41.0	22.5	20.1	21.2	16.2	13.9	11.3	10.1	9.2	10.6	9.3

[1] Landings and estimated discard mortality